



PATENT  
Attorney Docket No.: CIT1560-1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Benzer et al.

Art Unit: 1614

Serial No.: 09/895,141

Examiner Phyllis G. Spivack

Filed: June 29, 2001

Title: LIFE EXTENSION OF DROSOPHILA BY A DRUG TREATMENT

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Mail Stop: Non-Fee Amendment

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Commissioner for Patents

TECH CENTER 1600/2900

P. O. Box 1450

Alexandria, VA 22313-1450

**AMENDMENT IN RESPONSE TO THE OFFICE ACTION**

Sir:

Responsive to the Office Action mailed August 7, 2003, reconsideration of the application in view of the new claims and following remarks is respectfully requested.

**CERTIFICATION UNDER 37 CFR §1.8**

I hereby certify that the documents referred to as enclosed herein are being deposited with the United States Postal Service as first class mail on this date, December 5, 2003, in an envelope addressed to: Mail Stop Non-Fee Amendment, Commissioner for Patents and Trademarks, P. O. Box 1450, Alexandria, VA 22313-1450.

Cara Grifone

Name of Person Mailing Paper

Cara Grifone

Signature

## I. AMENDMENTS

Please cancel claims 1-22 and add new claims 23-32, as indicated below. Upon entry of the present amendment, the claims will stand as follows. The following listing of claims will replace all prior versions and listings of the claims in the present application:

1 to 22. (Canceled)

23. (New) A method for promoting free radical resistance of a cell comprising, contacting an inhibitor of histone deacetylase with the cell in an amount effective to increase activity of genes associated with free radical resistance selected from the group consisting of superoxide dismutase, cytochrome P450, and glutathione S transferase, thereby promoting free radical resistance of the cell.

24. (New) The method of claim 23, wherein the inhibitor of histone deacetylase is a butyric acid derivative.

25. (New) The method of claim 24, wherein the butyric acid derivative is selected from the group consisting of isobutyramide, monobutyryl, tributyryl, 2-phenylbutyric acid, 3-phenylbutyric acid, 4-phenylbutyric acid (PBA), phenylacetic acid, cinnamic acid, alpha-methyldihydrocinnamic acid, 3-chloropropionic acid and vinyl acetic acid.

26. (New) The method of claim 25, wherein the butyric acid derivative is soluble in an aqueous solution.

27. (New) The method of claim 25, wherein the butyric acid derivative is a salt.

28. (New) The method of claim 23, wherein the cell is a cell of an invertebrate organism.

29. (New) The method of claim 28, wherein the invertebrate organism is an insect or a nematode.

30. (New) The method of claim 29, wherein the insect is a Drosophila.

31. (New) The method of claim 23, wherein the cell is a cell of a vertebrate organism.

32. (New) The method of claim 31, wherein the vertebrate organism is selected from the group consisting of an amphibian, human, equine, porcine, bovine, murine, canine, feline, and avian organism.



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TRANSMITTAL SHEET

Sir:

Transmitted herewith for the above-identified application, please find:

1. Response to the Office Action mailed August 7, 2003 (8 pages); including Exhibit A (1 page);
2. Petition for One Month Extension of Time (2 pages);
3. Check No.: 549587 in the amount of \$55.00; and
4. Return Receipt Postcard.

**CERTIFICATION UNDER 37 CFR §1.8**

I hereby certify that the documents referred to as enclosed herein are being deposited with the United States Postal Service as first class mail on this date, December 5, 2003, in an envelope addressed to: Mail Stop Non-Fee Amendment, Commissioner for Patents and Trademarks, P. O. Box 1450, Alexandria, VA 22313-1450.

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A check in the amount of \$55.00 is enclosed for the One Month Extension of Time fee. If any additional fee is required, the Commissioner is hereby authorized to charge, or credit any overpayments to Deposit Account No. 50-1355. A duplicate copy of this sheet is attached.

Respectfully submitted,

Date: December 5, 2003



Lisa A. Haile, J.D., Ph.D.  
Registration No. 38,347  
Telephone: (858) 667-1456  
Facsimile: (858) 677-1465

GRAY CARY WARE & FREIDENRICH LLP  
4365 Executive Drive, Suite 1100  
San Diego, California 92121-2133  
**USPTO Customer Number 28213**